



MEETING CALIFORNIA'S LONG-TERM WATER FUTURE

Solutions in the Bay-Delta Watershed

T h e T i m e i s N o w



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EXECUTIVE SUMMARY

What is the Bay-Delta?

Fed by runoff from the Sierra Nevada, California's two largest rivers, the Sacramento and San Joaquin, meet just south of the city of Sacramento to form the 738,000 acre San Francisco Bay-Sacramento/San Joaquin Delta. California's principal source of fresh water, the Delta provides water to two-thirds of the state's 32 million residents and is the foundation of California's \$18 billion agriculture industry, irrigating 45% of the nation's fruits and vegetables. California's total economic output ranks seventh among leading world economies. It is also a place of wondrous beauty, providing the largest wetland habitat in the western U.S. and a critical nursery ground and migration corridor for more than 1,200 species of fish and wildlife.

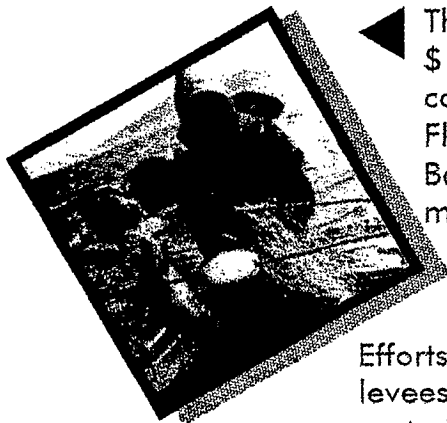
What is the Problem?

California is a semi-arid state with coastal urban and agricultural regions dependent on water imported from the Bay-Delta's watershed. For the past 150 years, development activities such as dredging and channelization, flood control, unscreened diversions, pollution, and large-scale water projects have contributed to degradation of the Bay-Delta's ecosystem.

During the 1980's and early 1990's, these factors and a seven-year drought combined to push fish populations to the brink of extinction and led to the listing of the winter-run chinook salmon and the delta smelt under the federal Endangered Species Act (ESA). Regulations implementing these listings reduced the amount of water available for export, causing significant economic disruptions in both urban and agricultural sectors.

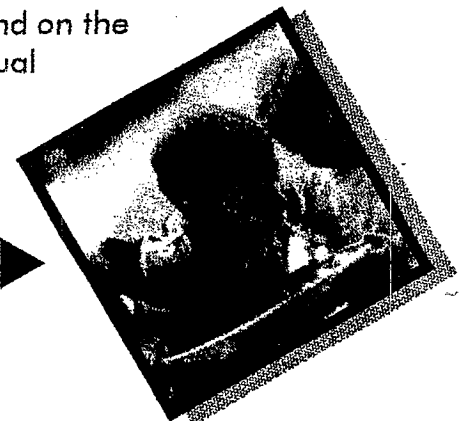
In 1994, Standard & Poor's warned municipal bond investors that these issues threatened to undermine bond ratings of major California water agencies, which could increase the cost of new capital projects for public agencies throughout the West.

It's not just a local issue ...



▶ The annual salmon harvest brings in more than \$100 million annually to the fishing industry and coastal communities. In addition, millions of Pacific Flyway shorebirds and waterfowl depend on the Bay-Delta as a crucial rest stop on annual migrations.

▶ Efforts to acquire sensitive lands, protect levees, and reduce the amount of organic materials in the Bay-Delta help to maintain and improve the quality of water for all of California's citizens.



New Beginnings: 1994 State/Federal Accord and CALFED

Seeking to end years of political and regulatory gridlock over how to resolve these problems, state and federal resource agencies, along with water agencies and environmental organizations, reached a historic Accord in December 1994, detailing interim measures for enhancing both environmental protection and regulatory stability in the Bay-Delta.

This Accord paved the way for the CALFED Bay-Delta Program, an ambitious planning effort between state and federal agencies for developing a long-range, comprehensive solution for the Bay-Delta watershed. Any alternative emerging from this process must meet the Program's four primary objectives, improving:

- Ecosystem health;
- Water supply reliability;
- Water quality; and
- Levee system stability.

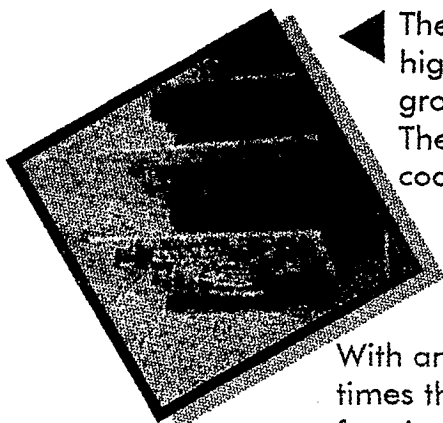
The CALFED process is well underway, with a short-list of three alternatives scheduled for detailed analysis over the next two years.

The Need for Cost-Sharing and Federal Participation

The costs of implementing CALFED's plan should be shared in a fair and equitable manner by the State of California, the federal government, and the beneficiaries of the plan, including water users, power users, recreational interests, and others. Public funding, in particular, is appropriate as part of this package for many of the broad-based ecosystem restoration activities that go well beyond mitigation and restoration responsibilities for water development alone.

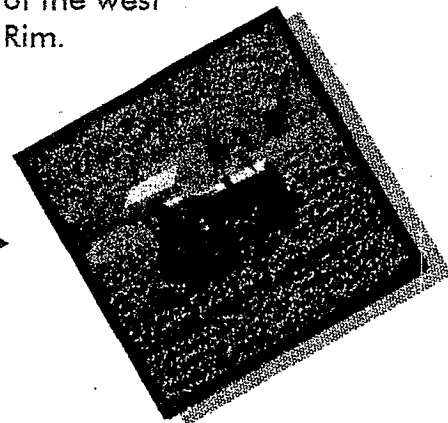
In 1994, state and federal agencies signed a "Framework Agreement" that laid the foundation for the Bay-Delta Accord and the CALFED program. Now, the focus of state and federal policy discussions needs to shift toward implementation and funding of CALFED's recommendations. With Proposition 204 now before California voters, a cost-sharing agreement between the state and federal governments is a critical next step.

... the whole nation benefits.



◀ The high-tech and manufacturing industries need high quality water to produce the products that fuel a growing economy and provide high paying jobs. These industries are the key to the future of the west coast as America's gateway to the Pacific Rim.

With an average per acre crop value five times the U.S. average and an annual farming revenue of over \$18.3 billion annually, efforts to maintain the Bay-Delta are crucial not only to California, but the entire nation.



EXECUTIVE SUMMARY (CONT.)

Near Term Actions Needed:

The federal government needs to continue this cooperative effort and help accomplish the following targets in 1997:

1. A State/Federal Cost Sharing Agreement. Amendments to the current state/federal Framework Agreement are needed to include language on cost sharing for the CALFED long-term Bay-Delta plan. Signatories to the agreement would include: U.S. Army Corps of Engineers, the U.S. Bureau of Land Management, U.S. Dept. of Agriculture, the State Lands Commission in addition to the original eight CALFED agencies.
2. Funding for Early-Start Restoration Projects (especially Category III and related CVPIA projects and programs) in Fiscal Year 1997 and 1998.
3. Federal Cost-Sharing Policy Commitments from Congress and the Administration on Resolving the Bay-Delta crisis.

California's Contribution

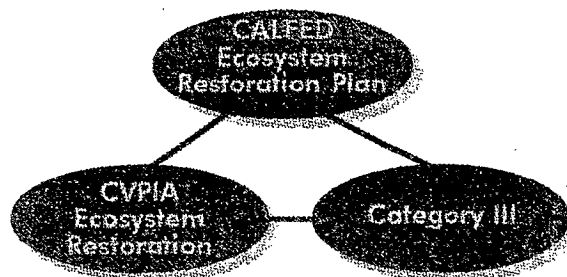
California has taken significant steps to contribute its share of Bay-Delta restoration costs. The Legislature and Governor will place before California voters on the November 1996 ballot a bond measure totaling almost \$1 billion, the bulk of which would pay for ecosystem restoration activities in the Bay-Delta. This restoration funding falls into three key areas:

Category III (\$60 million), is a partnership program contained in the 1994 Bay-Delta Accord to address non-outflow habitat measures.

CVPIA (\$93 million), funding the state's initial cost-sharing obligations under the federal Central Valley Project Improvement Act includes numerous environmental protection and restoration measures. Proper development and implementation of CALFED's Bay-Delta plan will coordinate these

two programs with the additional measures contained in CALFED's preferred alternative.

CALFED Ecosystem Restoration (\$390 million) will provide initial funding for ecosystem restoration component of CALFED's long-term plan. Availability of these funds would be contingent upon: 1) conclusion of CALFED's programmatic planning process and approval by key federal and state regulatory agencies; 2) execution of federal/state cost-sharing agreements regarding CALFED implementation; and 3) annual findings that water supply, water quality, and system integrity



These three restoration programs are an integral part to solving the long-term problems of the Bay-Delta estuary.

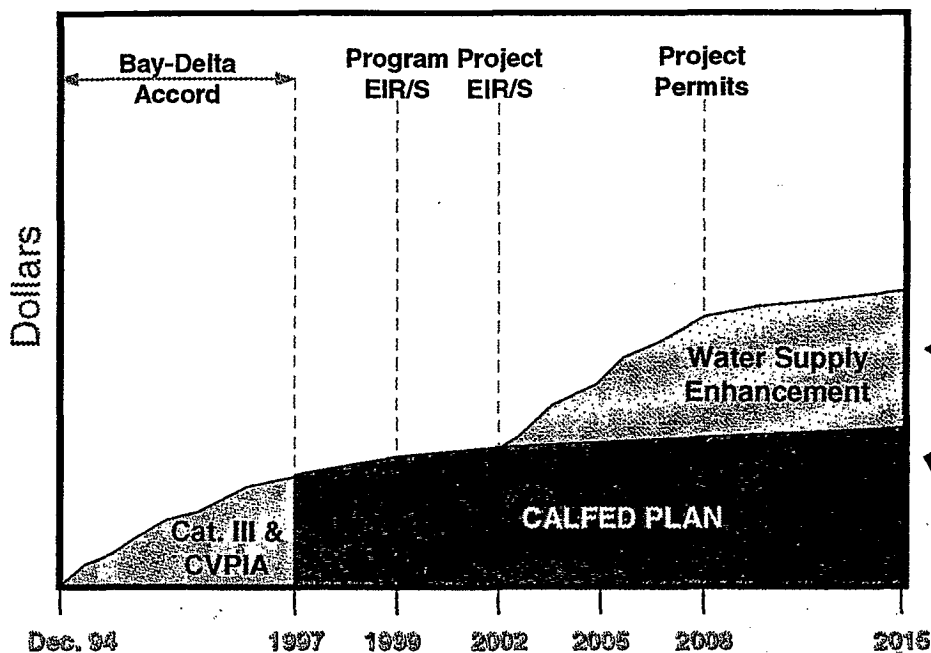
components of CALFED's plan are proceeding on schedule.

CALFED Long-Term Funding Schedule

The overall funding needed to complete the long-term management plan will require a coordinated effort among state, federal, and individual beneficiary groups. The timeline on the following page depicts a rough estimate for the implementation of early-start Category III and CVPIA projects, and the start-date of long-term CALFED environmental restoration and water supply enhancement projects.

CALFED Ecosystem Restoration Plan

As part of the process to identify individual actions to resolve Bay-Delta problems, CALFED has developed an Ecosystem Restoration Plan whose core elements are common to all program alternatives. This Ecosystem Restoration Plan generally enjoys broad support among stakeholders and will be coordinated with the resolution of other actions.



**Partial List of State/Federal
Cost Sharing Activities
For The San Francisco
Bay-Delta Estuary**

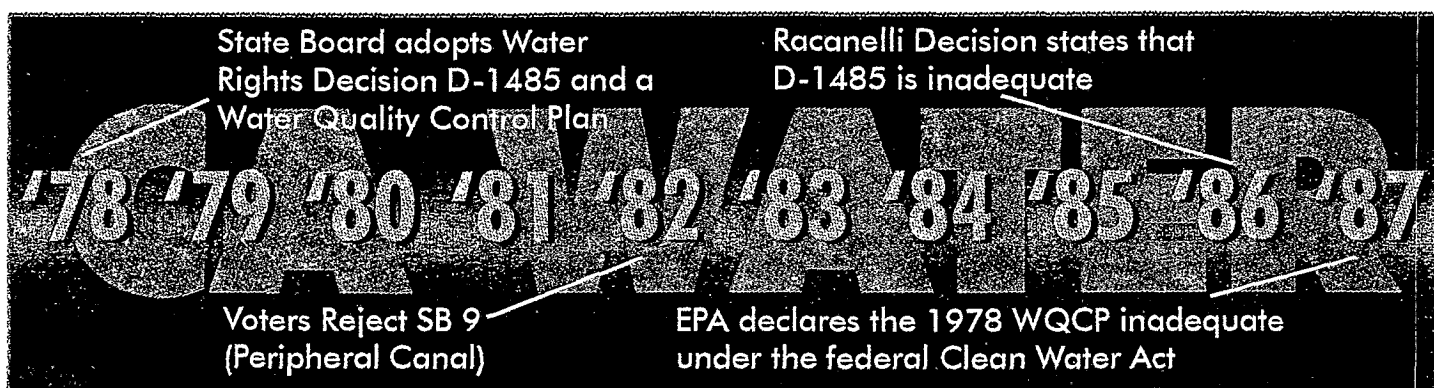
Project	Lead Federal Agency
Fisheries & Habitat Management	
□ Implement programs to protect, enhance, and restore fishery and riverine habitat in the Bay-Delta and its tributary streams	USFWS
□ Implement programs to restore and replenish spawning gravels in the tributaries of the Sacramento and San Joaquin rivers	USFWS
□ Implement programs and conduct evaluations to restore wetland habitat in the Bay-Delta	COE
□ Fund a grant program to support development of stream and watershed restoration technologies and to support completion of stream restoration and watershed management plans	EPA
Improve Fish Protection & Management	
□ Implement programs to conduct feasibility studies and construct screens on moderate sized diversions along the tributaries of the Sacramento and San Joaquin rivers	COE USBR
□ Implement programs to modify natural barriers that restrict migratory fish passage, replace and construct fish ladders, remove barrier dams, reconstruct water control facilities, and construct siphons along the tributaries of the Sacramento and San Joaquin rivers	COE USBR
□ Implement/negotiate flow increase agreements on the tributaries of the Sacramento River	USBR
□ Conduct an analysis of stock identification & life history success of chinook salmon	NMFS

BAY-DELTA HISTORY

The Delta - Heart of California's Waterways.

The Sacramento-San Joaquin River Delta sits at the heart of the nation's largest water storage and delivery system. The Delta consists of an intricate web of channels and sloughs at the confluence of California's two major rivers, the Sacramento River flowing from the north and the San Joaquin River flowing from the south. Water districts upstream of the Delta divert water to grow crops and supply urban economics. Federal and state projects store water both north and south of the Delta and pump it south of the Delta to

The mixture of fresh and salt water provides a diverse and unique habitat for more than 1200 species of fish and wildlife, supports large commercial and recreational fisheries, and contains the largest remaining wetland habitat in the West. With the construction of the State Water Project (SWP) and Central Valley Project (CVP), the Delta serves as a critical link in California's complex water distribution system. Delta channels are used to transport water from upstream reservoirs to the south Delta. These same Delta channels also serve as important fishery habitat to 25 percent of all warm water and anadromous sport



farms and cities from the San Francisco Bay Area to San Diego. Delta water has fueled California's economy for the past half-century. It is the vital link to a system that is the key to California's water future, the foundation of the state's \$800 billion economy, continued economic prosperity, good jobs, environmental vitality and quality of life.

Bay-Delta Dilemma

From a water resources perspective, California's economy and environment "meet" in the Bay-Delta estuary. The dual purposes of the Delta as a critical habitat supporting an abundance of estuarine species and as the central conveyance system for most of California's major water users have presented a resource management dilemma. Water from the Delta tributary rivers flow out to San Francisco Bay, forming the largest estuary on the West Coast of North America.

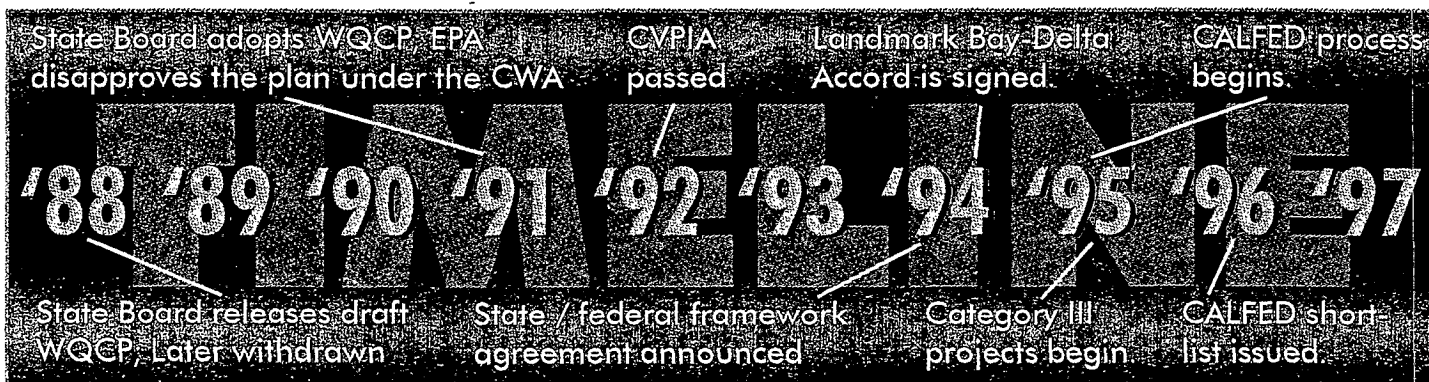
fishing, and 80 percent of the state's commercial fishes either live or migrate through the Delta. Its value as a natural resource is unparalleled.

California has reached the point where the existing Delta system cannot reliably meet water needs and protect aquatic species. Projected growth will place these competing needs in increasing conflict. The competing needs of Bay-Delta resources are most evident during dry periods in the West. Most of California's 32 million residents depend on the Delta for reliable and sufficient water supplies. Water diversions from the Delta and its tributaries meet the needs of California's growing population, but they also reduce the amount of water available for fish and wildlife. Consequently, management measures enacted to improve the Delta's environmental health can also affect the water supplies needed to support California's population and economy.

The Bay-Delta - Dramatic Transformations

The Bay-Delta ecosystem, including tributary watersheds, has been extensively modified over the last 150 years. As California's economy and population continued to grow, numerous activities contributed to the degradation of the Bay-Delta ecosystem, including mining, logging, wetlands reclamation for agriculture, urban development, industry, navigation, flood control projects, water projects, over-harvesting of biological resources (hunting and fishing), pollution, and the introduction of non-native species. Of California's

Modifications to water project operations to meet ever increasing needs are mired in a legal system of appropriative water rights and doctrines designed to protect several beneficial uses. These modifications are called for in a setting where Delta levees have not been maintained, questions have been voiced as to the adequacy of California's water supply systems, and fishery populations are declining. Major changes in water diversions and facility operation have occurred due to the listing of the Delta smelt and the winter-run chinook salmon under the federal Endangered Species Act. In order to accomodate the water needs of a



original 116 native fresh water fish, eight are now extinct and 15 are formally listed as threatened or endangered. While it is unlikely that the Bay-Delta estuary can ever return to a "natural" historical condition, substantial efforts towards restoration are warranted.

Solving the Problems of the Bay-Delta

By the year 2020, California's population, now at 32 million, is expected to increase to 49 million. The amount of water currently available from California's two largest water projects, the SWP and CVP, is insufficient to meet future needs. In a severe drought, annual water shortages could have disastrous implications for the economy, forcing statewide rationing and curtailing supplies to homes, business and farms. In order to accommodate the water needs of a growing population, current operations of the SWP and CVP will need to be modified to allow for greater project yields while minimizing environmental impacts.

growing population, water project operations and demand management policies will need to be modified to enhance opportunities for voluntary transfers, banking, and conjunctive use. This is why the time to act is now.

Past Efforts

Over the past 20 years, there have been major efforts in the California Legislature and by the Governor to solve the problems of the Delta. These efforts suffered from a lack of consensus among the various urban, agriculture, environmental, and other stakeholder groups.

It is clear to California's diverse water interests that the key to resolving the Delta's very complex and controversial problems lies in striking a fair balance between competing uses. Therefore a fundamental guiding principle of the CALFED planning effort is ensuring that the major stakeholder's interest progress in a coordinated manner.

CALFED PLANNING PROCESS

The CALFED Bay-Delta process is a formal state/federal planning effort with the charge of developing environmental documentation to support a long-range, comprehensive Bay-Delta management plan. CALFED's members consist of the following resource agencies:

The CALFED program has been developing a series of alternatives through an open public process over the last year and a half. In Phase I, to be complete by fall of 1996, the program will develop a short-list of alternatives. Phase II of the program will undertake detailed technical analysis of each alternative and how it will accomplish the four

1995

Sept. 1996

1999

Phase I
Develop Short-list of
Alternatives

Phase II
Program EIR/EIS & Selection
of Preferred Alternative

Phase III
Implementation of
Preferred Alternative

- **State**— California Resources Agency, Department of Water Resources, Department of Fish & Game, California Environmental Protection Agency, State Water Resources Control Board; and
- **Federal** — U.S. Department of Interior, Bureau of Reclamation, Fish and Wildlife Service, Environmental Protection Agency; and National Marine Fisheries Service.

Together with a 34-member Bay-Delta Advisory Council representing diverse stakeholder groups, these agencies are developing alternatives aimed at striking a fair balance between the competing beneficial uses of Delta resources. The CALFED program has adopted four main objectives:

- Improvement of water supply reliability
- Improvement of water quality
- Ecological restoration
- Protection from natural disasters

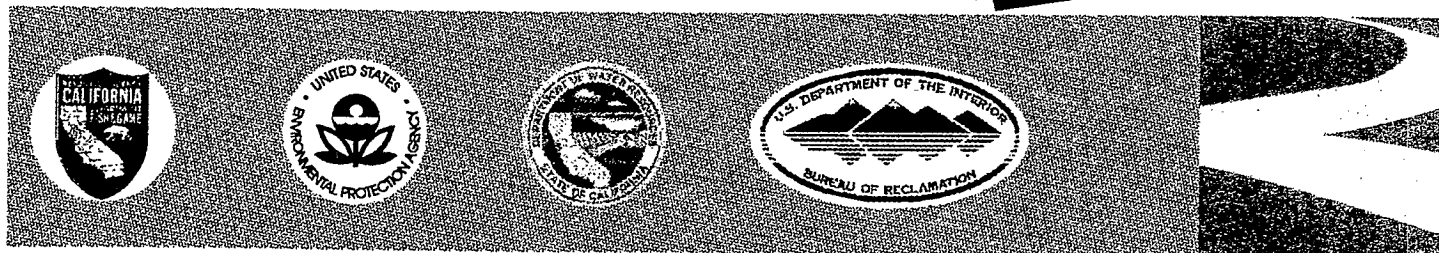
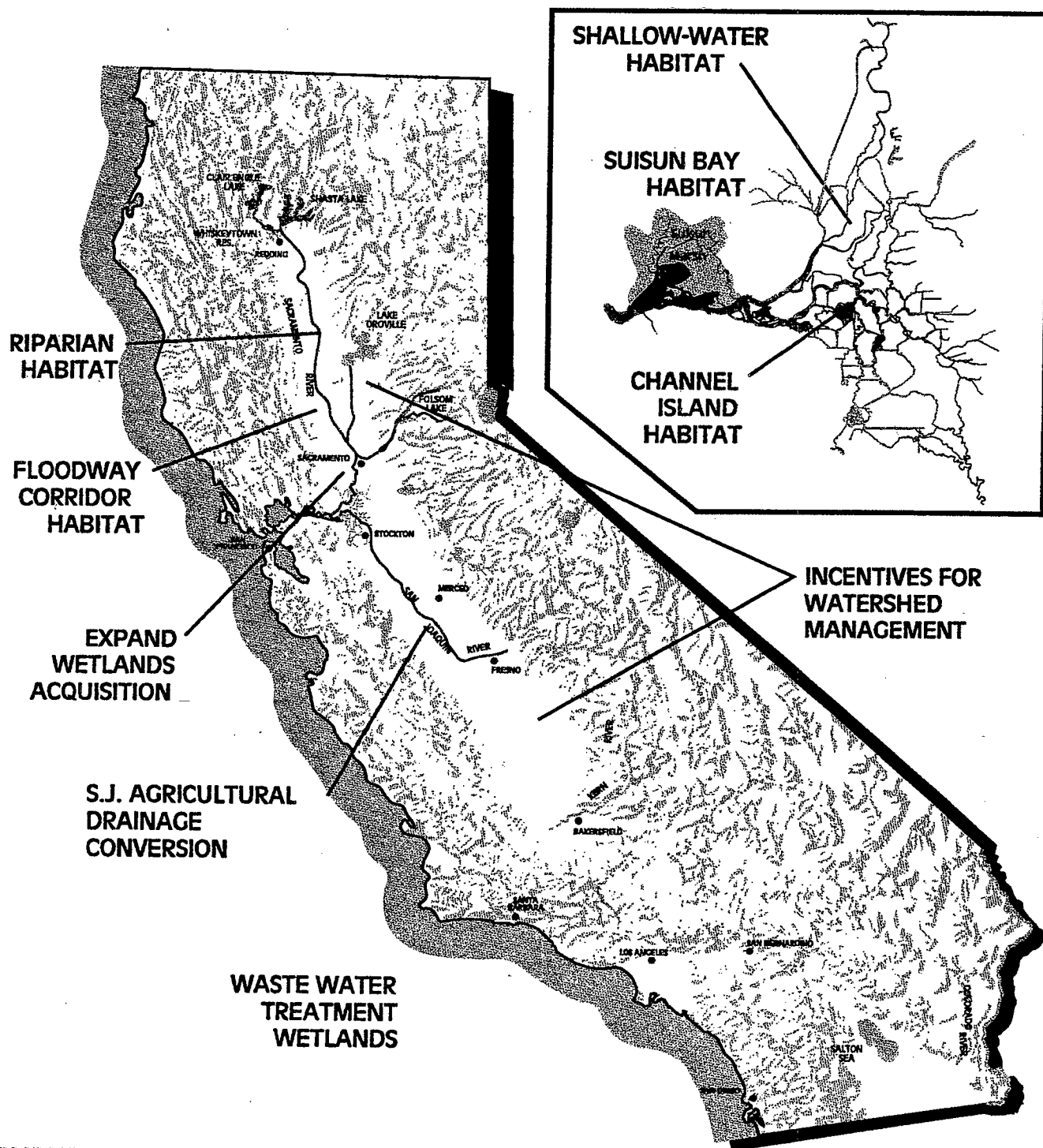
objectives. This analysis will identify a Preferred Alternative that will be analyzed in the Programmatic Environmental Impact Report/Statement (EIR/EIS). Phase III of the program will develop project-level EIR/EIS's for implementation of the preferred alternative.

The CALFED process is developing an Ecosystem Restoration Plan common to all alternatives. The Plan includes upstream habitat restoration, watershed management, reductions in the effects of diversion on fish, increased water supply reliability, and improved Delta system integrity. CALFED can best assure success by implementing the Ecosystem Restoration Plan, leading to both environmental restoration and water supply benefits.

**CALFED
AGENCIES**



CALFED ECOSYSTEM RESTORATION PLAN



CATEGORY III RESTORATION PROGRAM

What is the Bay-Delta Category III Program?

The December 1994 Bay-Delta Accord provided for the implementation and financing of "Category III" measures to address non-flow factors as part of a comprehensive ecosystem protection plan for the San Francisco Bay/Sacramento-San Joaquin River Delta Estuary. Category III measures address habitat conditions related to the following: unscreened water diversions; discharge of pollutants; over-fishing; illegal fishing (poaching); land-derived salts; exotic species; barriers to fish passage; riparian, wetland, and estuarine habitat; channel alterations; and local land-use modifications.

What is its Relationship to CALFED?

Restoration projects funded by Category III will play a critical role in testing restoration hypotheses to guide CALFED's long-term Bay-Delta restoration program. CALFED has recently put forth a proposal to create a permanent institutional framework for making Category III funding decisions within CALFED's organization. Central to CALFED's proposal is an "Ecosystem Roundtable" comprised of key Bay-Delta stakeholders which would have an advisory relationship to CALFED. It is envisioned that the Category III Steering Committee will disband once the Roundtable is in place. In the interim, the Steering Committee has deferred to CALFED for technical guidance on Category III expenditures.

Unscreened Diversions	Over-Fishing	Exotic Species
Discharge of Pollutants	Illegal Fishing	Habitat Restoration

The Bay/Delta Category III Program is playing a critical role in leveraging federal, state, and other monies to implement important restoration activities. The Category III Steering Committee, comprised of representatives from CALFED, urban and agricultural water users, environmental groups, and fishery interests, has been meeting since last summer to: 1) develop a path towards institutionalizing a long-term Category III program; and 2) approve funding of restoration proposals. To date, the Steering Committee has approved funding for eleven Category III projects representing a total Category III outlay of \$9.4 million (see map). This amount increases to \$28.6 million when all the contributions for these projects are considered.

It is anticipated that an additional \$12.2 million of Category III monies will be allocated to restoration proposals in the near future. This amount includes \$2.2 million of uncommitted Category III monies and an additional \$10 million from the Metropolitan Water District of Southern California, in response to CALFED's new crediting policy for early contributions to the Category III Program.

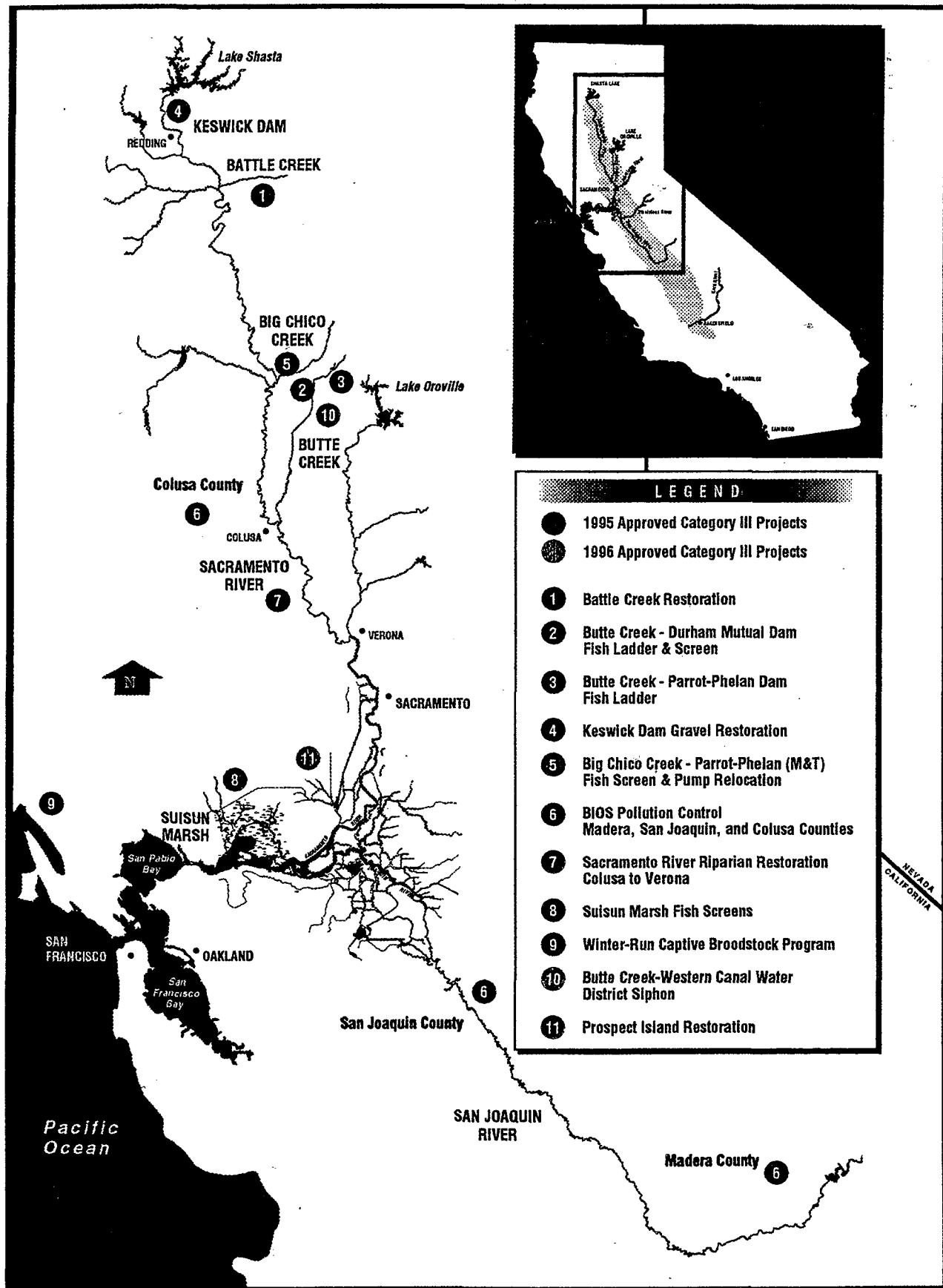
What is the Federal Funding Commitment?

The federal government made a commitment in the Bay-Delta Accord to play a key role in ensuring that Category III activities would be funded, in part, with new federal dollars. Appendix C of the Bay/Delta Accord states:

- **Level of funding:** "Category III activities are expected to require a financial commitment estimated to be \$60 million a year."
- **Sources of funds:** "It is anticipated that new sources of funds will be required to adequately finance Category III activities. A process for evaluating existing funding and possible reprioritization will be used to finance a portion of Category III activities. Additional funds will be secured through a combination of federal and state appropriations, user fees, and other sources as required."

Up to now, no new federal money has been secured to fulfill the federal government's obligation to fund Category III activities as originally envisioned in the Bay-Delta Accord.

CATEGORY III 1995-1996 RESTORATION PROJECTS



11

CALIFORNIA'S SHARE OF FUNDING

Background

The California legislature recently passed SB900, a \$995 million general obligation bond measure. Its main objective is to provide state funds for habitat restoration activities in the San Francisco Bay-Delta Estuary. SB 900 would also provide funds for water recycling, water quality, water supply reliability, and Delta levee improvement. The bill passed the Senate and Assembly with overwhelming bipartisan support and the endorsements of environmental, urban, agricultural, and business stakeholder interests. The Governor signed it immediately and placed it on the November 1996 ballot as Proposition 204.

SB 900/Prop. 204 Provisions

Prop. 204 contains two sections. Section 1 provides:

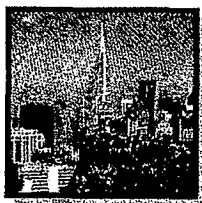
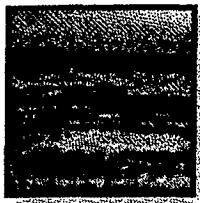
- Initial state cost-sharing for the federal Central Valley Project Improvement Act (CVPIA), which became law in 1992 and has been funded by the federal government and water users. Since 1992, the state has made in-lieu contributions. Prop. 204 would provide the first state contribution to the CVPIA.
- The state's share of funding for Category III non-flow measures
- Substantial funds for cost-sharing of water recycling projects
- Financing for Delta levees rehabilitation
- Water waste treatment loans and grants
- Funding for feasibility studies for off-stream storage and conjunctive use
- Incentive funds for water conservation and ground water recharge



Benefits

- Restore Fisheries
- Watershed Management
- Reclamation & Conservation

FOR BAY-DELTA IMPROVEMENTS



Benefits

- **Preserve Wetlands**
- **Water Reliability**

Section 1 of Prop. 204 also provides funding for other water infrastructure needs, such as local projects, watershed rehabilitation, and agricultural drainage management.

These measures are vital components of any long-term solution for the Bay-Delta, since they will improve habitat, improve water quality in the Bay-Delta Estuary and its tributaries, and improve reliability of local water supplies.

Section 2 of Prop. 204 will provide even more direct benefits to the Bay-Delta Estuary. Section 2 authorizes bond funds to pay for the public general obligation share of the Environmental Restoration Plan and other ecosystem restoration actions contained in CALFED's preferred alternative. Since the Environmental Restoration Plan will be part of any solution developed by CALFED, work should begin on it immediately.

Keeping All Water Interests at the Table

An important feature of Prop. 204 is that it conditions the release of bond funds on a schedule designed to maintain support from all interest groups for the CALFED process and a comprehensive Bay-Delta solution. Toward that end, it is critical to secure federal funding to supplement the state share provided by Prop. 204.

Prop. 204 - California Funding

Clean Water & Water Recycling	\$235m
Water Supply Reliability	\$117m
Delta Improvements	\$193m
CALFED Bay-Delta Ecosystem	\$390m
Flood Control Subventions	\$60m
Total	\$995m

ROLE OF THE FEDERAL GOVERNMENT IN

The federal government has assisted with the financing of many major aquatic environmental restoration initiatives. In these initiatives, Congress found that a valid federal interest existed to justify a component of federal public financing. As an ecosystem of national importance, California's Bay-Delta deserves cooperative and integrated efforts at the state and federal levels to manage its rich resources. A successful CALFED process, California's policy and financial commitment to support Bay-Delta restoration, and increased federal funding are all critical elements of solutions that will protect the health of the Bay-Delta. These elements will also allow for continued support of California's economic progress. Notable examples of cooperative initiatives include:

Columbia River Basin:

In 1980, the Northwest Power Act established the Northwest Power Planning Council (NPPC). The NPPC is an eight-member board appointed by the governors of the Pacific Northwest states to guide the actions of the Bonneville Power Administration (BPA). While subsequent ESA listings of salmon have strengthened the role of the NMFS in the Columbia watershed, Columbia River interests continue to pursue a cooperative, integrated approach to wildlife and habitat restoration. The salmon recovery plan is the most expensive recovery plan in the history of the Endangered Species Act (ESA). The Clinton Administration has supported a cap of \$435 million on the fish recovery costs borne by the BPA. In addition, a Fish Recovery Contingency Fund would be created with \$325 million in federal funds to cover costs of recovery actions above the cap.

Northwest Forest Plan (Oregon, Washington, and Northern California):

President Clinton has proposed a Forest Plan designed to balance economic and environmental benefits through region-wide ecosystem management. In 1995, federal resources totaling \$350 million were administered through the coordinated efforts of 12 federal agencies. Fiscal year 1996 expenditures are expected to be \$318 million, with \$391 million proposed for fiscal year 1997.



**Columbia River
Basin**

**San Francisco
Bay-Delta**

Benefits

■ **Restore Environment** ■ **Stabilize Economy**

ESTUARIES OF NATIONAL SIGNIFICANCE

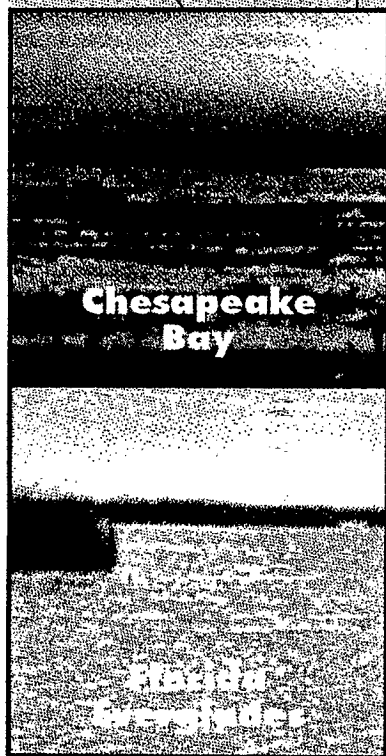
Chesapeake Bay Program:

The largest estuary in the United States, the Chesapeake Bay was also the first to be targeted for restoration and protection. Under the Chesapeake Bay Agreement of 1983, the cooperative planning of federal, state, and local agencies and organizations serves as a model for habitat research and restoration. The partners in the Bay Program are the States of Maryland, Pennsylvania, and Virginia, the District of Columbia, the Environmental Protection Agency, and the Chesapeake Bay Commission, a tri-state legislative advisory commission. In 1994, federal agencies committed themselves to managing the Chesapeake Bay watershed as a cohesive ecosystem and working together and with the states and other parties to achieve the goals of the Chesapeake Bay Agreement.

South Florida Ecosystem Restoration:

In 1993, the Secretary of the Interior urged a higher level of coordination among federal agencies to coordinate restoration actions in South Florida. In September 1993, the Interagency Task Force on the South Florida Ecosystem was formed. Now called the South Florida Ecosystem Restoration Task Force, the group is made up of Assistant Secretaries, Assistant Administrators, and other high-level representatives of federal agencies. The Lieutenant Governor of Florida and representatives of Indian tribes also serve on the Task Force.

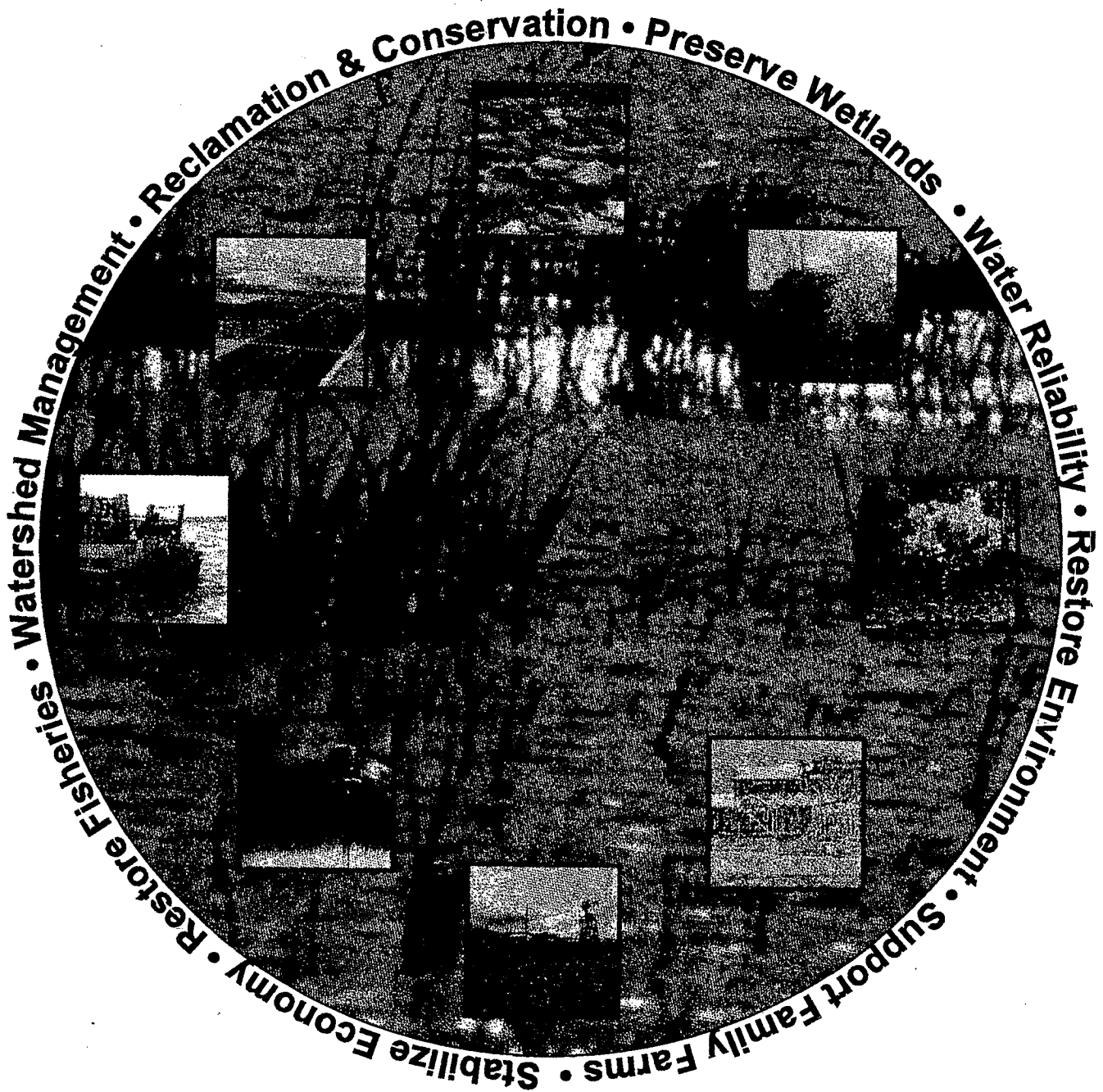
In the recently signed Farm Bill, \$200 million in federal funding is committed to South Florida restoration efforts. An additional \$100 million in revenue from the sale or exchange of federal lands is also committed. With state matching funds, this could result in \$600 million available for South Florida restoration. These amounts are over and above federal agency budgets for South Florida and the amounts discussed in the President Clinton's fiscal year 1997 budget proposal for the Everglades Restoration Fund. The President's fiscal year 1997 budget proposal includes Everglades restoration funding of \$104 million in fiscal year 1996 and \$136 million in fiscal year 1997. On top of this, the budget called for establishing an "Everglades Restoration Fund" with federal contributions of \$100 million per year for four years.



Benefits

■ **Jobs Programs** ■ **Support Family Farms**

Restoring the Bay-Delta



Benefits for California & the Nation